

C2  
C3  
Ampl. No. 09/433,499

a fuse array having a plurality of fuses used in the vehicle and arranged between the base and the cover of the fuse box, the fuses electrically connecting the common bus terminal with the discrete circuits, wherein the common bus terminal is completely translationally removed from and translationally reinserted onto the plurality of fuses and the discrete circuits.

Please amend Claim 28 as follows:

28. (Twice Amended) A fuse box for a vehicle comprising:

a base and a cover that is completely removed with respect to the base;

a common bus terminal that attaches to and is completely removed with one of the base and the cover from the other of the base and cover, the terminal also removed completely from a plurality of discrete circuits; and

a plurality of fuses used in the vehicle and housed between the base and the cover that electrically couple to the common bus terminal and the plurality of discrete circuits.

#### REMARKS

This Response is to the final Office Action dated February 4, 2003. Claims 1 to 7, 19 to 25 and 28 to 34 were pending previously. Claims 1 to 7, 19 to 25 and 28 to 34 stand rejected. In this Response, Claims 19 and 28 are being amended to place the application in condition for allowance. It is believed that no fee is due in connection with this response, however, please charge Deposit Account No. 02-1818 for any fees owed.

In the final Office Action, Claims 1 to 7, 19 to 25 and 28 to 34 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter that was not described in the specification at the time the application was filed. In particular, the term "plurality of rows of axial fuses" in Claim 1 allegedly contains new matter. Claims 1, 3, 5 and 6 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,905,013 to Lee ("Lee"). Claim 4 was rejected under 35 U.S.C. §103(a) as being obvious in view of Lee and U.S. Patent No. 4,842,534 to Mobely et al. ("Mobely"). Claim 7 was rejected under 35 U.S.C. §103(a) as being obvious in view of Lee and U.S. Patent No. 5,823,819 to Kondo et al. ("Kondo"). Claims 2, 19 to 23, 25, 28, 33 and 34 were rejected under 35 U.S.C. §103(a) as being obvious in view of Lee and U.S. Patent No. 2,496,732 to Lyman ("Lyman"). Claim 24 was rejected under 35 U.S.C. §103(a) as being obvious in view of Lee and U.S. Patent No. 5,227,759 to Hatagishi

Appl. No. 09/433,499

("Hatagishi"). Claims 29, 30 and 32 were rejected under U.S.C. §103(a) as being obvious in view of *Lee* and U.S. Patent No. 4,706,059 to Schmitt ("Schmitt"). Claim 31 was rejected under 35 U.S.C. §103(a) as being obvious in view of *Lee* and U.S. Patent No. 5,095,297 to Perreault et al. ("Perreault").

Regarding the rejection of Claims 19 to 25 and 28 to 34 under §112, first paragraph, Applicants respectfully traverse that rejection. Those claims do not include an element directed to a plurality of rows of fuses. Applicants note that the prior amendments to Claims 19 and 28 and the current amendments to those claims do not add the element "plurality of rows of axial fuses". It is therefore respectfully submitted that the §112 rejection is inapplicable to Claims 19 to 25 and 28 to 34.

Regarding rejection of Claims 1 to 7 under §112, Applicants reiterate and incorporate by reference each of the points presented in the previous Response (filed September 22, 2002) regarding the support in the specification for the term "plurality of rows of axial fuses". In particular, that response remarks that Figures 3 to 5 show an elevation view of the invention for convenience and ease of illustration. Figure 1 however clearly shows a "plurality of rows of fuses". The fact that Figure 1 is a prior art figure does not remove that figure from providing support for the claims. The fact that the rows of automotive fuses are shown in connection with a prior art figure does not remove that subject matter from the present invention nor from being a feature in combination with other elements that are collectively patentable.

It is axiomatic that patentable inventions can include new combinations of known items. Support for a plurality of fuses, an element of Claim 1, is provided by Figure 1. It is irrelevant from a §112 standpoint that the Figure is labeled prior art. There is support in the specification for a plurality of rows of axial fuses. Indeed, MPEP §2163 (II)(A)(2) requires the Examiner to review the entire specification to determine whether the disclosure satisfies the written description requirement. Further, 37 C.F.R. §1.77(b)(5) specifically lists the Background of the Invention as an element of the specification. The Background of the Invention must therefore be considered when determining if §112, first paragraph, has been satisfied.

From a practical standpoint, one skilled in the art reading the specification understands that the invention intends to cover a fuse box having a plurality of rows of axial fuses. The single perspective view of Figure 1 is all one skilled in the art needs to see to understand that the side views of Figs. 3 to 5 are merely a simpler way to illustrate the present invention and are not

Appl. No. 09/433,499

intended to limit the invention to a single row of fuses. One skilled in the art does not need to see Figs. 3 to 5 in perspective to understand that the inventions of those figures include multiple rows nor to understand how to wire or configure those inventions for multiple rows.

Applicants have amended the specification in accordance with Figure 1 to reiterate that the positive terminal of the battery supplies power to a plurality of rows of fuses. That amendment merely restates what should already be understood by one of skill, namely, that the inventions disclosed in connection with the side views of Figures 3 to 5 include multiple rows of fuses, which are shown in the perspective view of Figure 1.

Regarding the rejection of Claims 1, 3, 5 and 6 over *Lee*, Applicants respectively traverse the finding that *Lee* shows a plurality of rows of fuses. Fig. 3 of *Lee*, instead of showing a plurality of rows of fuses as stated in the Office Action, shows only a single row of fuses *f<sub>f</sub>* mounted to a base *b<sub>f</sub>*. Accordingly, *Lee* teaches away from the combination of elements of Claim 1, which calls for a common bus assembly and a plurality of rows of fuses, wherein the common bus assembly is configured and arranged to contact the fuses in the rows to connect the power source to the load circuits.

*Lee* does not teach or suggest the common bus assembly in combination with a plurality of rows of fuses. No other reference is cited to show that combination of features. Applicants accordingly submit respectfully that Claim 1 has sufficient support in the specification and is distinguished over *Lee*. Accordingly, Claims 2 to 7 that depend therefrom are likewise distinguished over *Lee*. Also, the patentability of Claim 1 renders moot the obviousness rejections of Claims 2 and 7. Claims 1 to 7 are therefore in condition for allowance.

Regarding the rejection of Claims 19 and 28 in view of *Lee* and *Lyman*, Applicants have amended those claims. In particular, both claims recite an element, wherein a common bus terminal is completely translationally removable from a number of discrete circuits. Applicants respectfully submit that those claims as amended are novel and non-obvious in view of *Lee* and *Lyman*.

The Office Action admits that *Lee* does not disclose the common bus terminal being translationally removable and reinsertable onto a plurality of fuses. The Office Action attempts to remedy this deficiency via *Lyman*. Fig. 6 of *Lyman* is the only figure that mentions fuses, namely, fuses 45 (It is interesting to note *Lyman* shows only a side view of the apparatus and only a single fuse accordingly, however, the Office Action makes the leap in subject matter

Appl. No. 09/433,499

calling the disclosure of Fig. 6 a "fuse arrangement": it seems unfair that such a leap can be made with respect to the prior art but not with the respect to the disclosure of the present invention.).

Fig. 6 shows an apparatus with panels C and D. The fuses 45 are connected to the base panel D. Cables 40 and 41 are attached to and are removable with the panel C. In that manner, cables 40 and 41 lift away from panel D with the panel C. Fig. 6 does not show a common bus removable with the cover from a number of discrete circuits. Moreover, *Lyman* provides no instructions or suggestions as to how its Fig. 6 apparatus could be modified to provide or teach the apparatuses of Claims 19 and 28. In Fig. 6, rather, cables 40 and 41 are required to be removable with the cover so that spring contacts "U" connected electrically to cables 40 and 41 can contact electrically legs 24, which in turn are connected electrically to respective fuses 45. One would have to severely modify *Lyman* to create the apparatus of Claims 19 and 28, which would: (i) be a hindsight reconstruction of those claims; and (ii) require significant structural limitations to be deemed "inherently known" since no art has been presented to show the combination of structural elements of Claims 19 and 28.

In view of the foregoing, Applicants respectfully submit that Claims 19 and 28 as amended are distinguished patently over *Lee* and *Lyman* taken singly or in combination. Accordingly, Claims 20 to 25 and 29 to 34 that depend respectfully therefrom are also distinguished over *Lee* and *Lyman*. Also, applicants respectfully submit that the patentability of base Claims 19 and 28 renders moot the obviousness rejections Claims 24 and 29 to 32. It is therefore respectfully submitted that Claims 19 to 25 and 28 to 34 are in condition for allowance.

An earnest endeavor has been made to place this application in condition for formal allowance and an allowance indicating same is courteously solicited. This Response has been sent by fax with the hope that if the case is not in condition for allowance, an Advisory Action indicating same is provided in as soon as possible. If the Examiner has any questions regarding the above Response, Applicants respectfully request that the Examiner contact the attorney designated below to discuss the Response.

Appl. No. 09/433,499

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Versions with Markings to Show Changes Made."

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY 

Robert W. Connors

Reg. No. 46,639

P.O. Box 1135

Chicago, Illinois 60690-1135

Phone: (312) 807-4214

FAX RECEIVED  
MAY 05 2003  
TECHNOLOGY CENTER 2800

Appl. No. 09/433,499

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Specification:**

The paragraph beginning at page 8, line 11 has been amended as follows:

In the embodiment illustrated, the cover 44 includes an integral common bus terminal 46 that connects with each of the fuses 48 via the fuse terminals 49. The common bus terminal 46 is preferably connected to the positive terminal voltage B+ of the vehicle battery, shown connected at node 54. As seen in Figure 1, the positive terminal voltage B+ of the vehicle battery powers a plurality of rows of automotive fuses.

**In the Claims:**

Claim 19 has been amended as follows:

19. (Twice Amended) A fuse box arrangement for a vehicle comprising:

- a fuse box having a base and a cover;
- a common bus terminal within the fuse box, the common bus terminal connected to a voltage supply;
- a plurality of wire terminals within the fuse box, each of the plurality of wire terminals connected to a discrete circuit; and
- a fuse array having a plurality of fuses used in the vehicle and arranged between the base and the cover of the fuse box, the fuses electrically connecting the common bus terminal with the discrete circuits, wherein the common bus terminal is completely translationally removed from and translationally reinserted onto the plurality of fuses and the discrete circuits.

Appl. No. 09/433,499

Claim 28 has been amended as follows:

28. (Twice Amended) A fuse box for a vehicle comprising:  
a base and a cover that is completely removed with respect to the base;  
a common bus terminal that attaches to and is completely removed with one of the base  
and the cover from the other of the base and cover, the terminal also removed completely from a  
plurality of discrete circuits; and  
a plurality of fuses used in the vehicle and housed between the base and the cover that  
electrically couple to the common bus terminal and the plurality of discrete circuits.

FAX RECEIVED  
MAY 05 2003  
TECHNOLOGY CENTER 2800